

**Notice of Allowability**

Application No.

09/994,299

Examiner

David Ton

Applicant(s)

ABRAMOVICI ET AL.

Art Unit

2133

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 10/12/2004.
2. ☒ The allowed claim(s) is/are 29-46 which are renumbered to 1-20.
3. ☒ The drawings filed on 20 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**DAVID TON**  
**PRIMARY EXAMINER**

RD

### ***Examiner Amendment***

1. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee.

2. Specification, page 2, lines 14-16, change "6,256,758 and in pending U.S. Application Nos. 09/405,958, 09/671,853, 09/406,2 19, and 09/61 1,449. The full disclosures in this patent and patent applications are also incorporated herein by reference" to -- 6,256,758, 6,550,030, 6,631,487, 6,574,761, 6,530,049. The full disclosures in these patents are also incorporated herein by reference --.

### ***Allowance***

3. Claims 19-48 are allowed.

4. The following is an Examiner's Statement of Reasons for Allowance:

The prior art of record teaches the claimed invention substantially, but it fails to teach or suggest singly or in combination a method/apparatus for identifying faulty programmable interconnect resources of a field programmable gate array during normal on-line operation comprising the sequence of steps: (a) configuring said field

programmable gate array into an initial self-testing area and a working area, said working area maintaining normal operation of the field programmable gate array; (b) testing at least two groups of wires under test located within said self-testing area for faults; (c) identifying a faulty group of wires under test from said at least two groups of wires under test having a faulty programmable interconnect resource therein; (d) minimizing a region of said faulty group of wires under test containing said faulty programmable interconnect resource; (e) identifying a wire within said faulty group of wires under test containing said faulty programmable interconnect resource; and (f) replacing programmable interconnect resources within said wire and said region with fault-free programmable interconnect resources for further testing in order to identify a wire segment, a configuration interconnect point, and/or a combination thereof which includes said fault as set forth in independent claims 29 and 46.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Ton whose telephone number is (571) 272-3828. The examiner can normally be reached on M-Th from 5:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Ton  
Primary Examiner  
Art Unit 2133